DOCUMENT RESUME

ED 170 793 CS 502 410

AUTHOR Soedjatmoko
TITLE The Future and the Learning Capacity of Nations: The Role of Communications.
INSTITUTION International Inst. of Communications, London (England).
PUB DATE 78
NOTE 26p.; The Louis G. Cowan Lecture given during the Annual Conference of the International Institute of Communications, September 11, 1978, Dubrovnik, Yugoslavia
AVAILABLE FROM International Institute of Communications, Tavistock House East, Tavistock Square, London WC1H 9LG, England

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Communication (Thought Transfer); *Communications; *Developing Nations; *Futures (of Society); *Mass Media; *Social Change; Social Problems; *Social Responsibility; Technological Advancement

ABSTRACT

The capacity of a national society to adjust to rapidly changing technoeconomic, sociocultural, and political changes depends greatly on its collective capacity to generate, ingest, reach out for, and utilize a vast amount of new and relevant information. This capacity for creative and innovative response to changing conditions and new challenges, the "learning capacity" of a nation, is not limited to the cognitive level, but includes the attitudinal, institutional, and organizational levels of society as well. The mass impact of modern communications makes it incumbent on the communicator to bring out the societal potential of the new advances in communications technology. Modern communications ought to be used in ways that will maintain and strengthen the essential pluralism of our societies; ensure greater capacity and opportunity for the weak, poor, and underinformed to participate in decision making; and facilitate mass education, using technology to facilitate open learning systems. Communications research should deal systematically with the communications impact on whole cultures and on macroprocesses of social change. (DF)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED170793

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

The Louis G Cowan Lecture
1978

Soedjatmoko

The future and the learning capacity of nations: the role of communications

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

International Inst.
of Communications

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

International Institute of Communications

CS 502 410

© 1978 International Institute of Communications
ISBN: 0 904776 08 5
Published by the International Institute of Communications,
Tavistock House East, Tavistock Square, London WC1H 9LG.
Printed by Tradsgreat Ltd, 284 London Road, Wallington, Surrey.

The International Institute of Communications provides a forum for the discussion of communication policies and issues. It is concerned with the cultural, social, economic, political and legal aspects of communications, both now and in the future. Its work is global and multidisciplinary and involves politicians and policy-makers, executives, broadcasters, journalists, industrialists, engineers, lawyers and academics. It holds seminars and conferences, organises international and national research projects and has a library and publications programme. Its journal *InterMedia* provides news and comment on communications issues around the world.

In 1977 the IIC founded the Louis G. Cowan Lecture in honour of one of its first and most energetic Trustees. Louis G. Cowan was born in Chicago in 1909 and died in New York in November, 1976. In the 1940s and 1950s he created several innovative radio and TV shows including *The Quiz Kids*, *Stop the Music*, *Hollywood Calling*, *Captain Kangaroo* and *The $64,000 Question*. In 1955, he was appointed Vice President, Creative Services, CBS Inc., and in 1958, President, CBS Television Network. In 1961 he became Director of the Mass Communication Research Center at Brandeis University and started his own publishing company, Chilmark Press. From 1965-76 he was Director of Special Programmes at the Graduate School of Journalism, Columbia University. He was Chairman of the Publishing Board of *Partisan Review* and Chairman of the Publications Committee of the *Columbia Journalism Review*.

Previous Louis G. Cowan Lectures:

1977 Harold Lasswell: *Communication in a divided world: Opportunities and constraints*, given at Washington, DC, USA.

The 1978 Louis G. Cowan Lecture was given by Soedjatmoko on 11 September, 1978, in Dubrovnik, Yugoslavia, during the Annual Conference of the International Institute of Communications.

Soedjatmoko was born in Sawahlunto, Indonesia, in 1922. He worked in the Ministry of Information 1945-47. He was a member of the Indonesian delegation to the United Nations Security Council 1947-50, and Alternate Permanent Representative of the Indonesian Mission to the United Nations 1950-51. For the next few years he worked as an editor and publisher. From 1956-59 he was a member of Indonesia's Constituent Assembly. In 1958 he was appointed Indonesian Ambassador to the USA. Since 1971 he has been Adviser to the Chairman, National Development Planning Agency.

He is a member of the Advisory Council of the International Institute for Environment and Development; a member of the Club of Rome; a member of the Board of Trustees of the Aspen Institute; and a member of the Board of Trustees of the Ford Foundation. He has honorary doctorates from Yale University, USA, and Cedar Crest College, USA, and in 1971 was an International Fellow of the American Academy of Arts and Sciences.

The views presented in this lecture are the author's own. They do not necessarily reflect those of the Indonesian National Development Planning Agency, to which he is an adviser.

The future and the learning capacity of nations: the role of communications

There seems to be a growing disparity between what we know about our human predicament which so marks our time, and our ability to act on that knowledge. We do know that the decisions we have made, are now making and will be making in the present decade will have a decisive influence on the condition in which our societies will move into the 21st century.

We have a good general understanding of the forces which have led to the present 'problematique'. To a very large extent they are, directly or indirectly, the result of the progression of science and technology, including the rapid growth of communications. To speak about the interdependence of the world has become commonplace. We know that the industrial world is rapidly moving into a post-industrial, information-intensive phase. We also know that the resulting dislocations are aggravated by another set of adjustments that have to be made. These are the consequences of the industrial revolution finally, after two centuries, reaching the Southern hemisphere of our globe, and the resulting demands for access to industrial country markets.

It is already obvious that we are involved in a rather painful but overdue process of change in the pattern of the international division of labour towards a more rational and equitable distribution of industrial capacity and jobs across the globe.

A process of redistribution of global power has also begun, with the emergence on the scene of new economic global as well as regional political powers. Simultaneously, there has been a considerable diffusion of power across the globe, with a relative decline in the power of the West, even though the United States' power may have increased in absolute terms. At the same time we have all become aware of the growing deterioration of the global resource base on which modern industrial societies operate, as well as of the continuing ecological degradation of land, sea and air.

Differences in the population growth rate between the North and the South have added to the complexities of these problems. Those in the West have gone down, and this is reflected in the rising median age of the population curve. Those in the South remain high, although several countries are beginning to show a declining

rate of increase. Nevertheless, the age pyramid in those countries indicates a continuous lowering of the median age which is expected to continue for some more time. They are already being confronted with a youth cohort larger than ever before. And their societies, as presently structured, are beginning to strain under this pressure.

In the industrial countries of the West, the problem is that a relatively smaller productive labour force will have to be able to support an increasingly large unproductive part of the population, in a culture which has not yet found a meaningful role for the aged. At the same time, population projections also indicate that the presently urgent problem of youth unemployment may be serious but not permanent. In the Third World it is beginning to become obvious that massive unemployment will require a development and industrialisation trajectory which will not be a replica of the Western model. It will have to be shaped autonomously, by dealing directly with rural unemployment and the structural nature of widespread and endemic poverty.

We all know that the period of cheap energy is over, but no significant movement towards an energy — and resource — conserving lifestyle and mode of production is yet discernible. If decisions are taken at all, they are in the direction of the use of nuclear power as the easiest way out despite its present technological flaws, its high ecological cost and the risks of waste disposal. Almost everyone, including those directly involved in the nuclear arms race, is aware of the ultimate irrationality of the dimensions into which it has grown.

But no one, including the super-powers themselves, seems to be able to bring the process of continuous escalation under control and to reverse it, let alone to redirect the tremendous scientific, technological and financial resources behind it to more peaceful purposes. Neither do we seem capable of getting an adequate conceptual handle on the post-nonproliferation problems that are now beginning to stare us in the face. Not to speak of our capacity to negotiate and manage a reasonable system of control. And now the beginning fragmentation of detente has made all of us realize how much closer we are getting to the flashpoint of nuclear conflagration.

We all know what the doomsday prophets have to say about these trends. We are also familiar with the technological optimists who are putting their hopes on human inventiveness and unlimited

technological progress. There are also those, especially within the Third World, and I am one of them, who believe that the present crisis may signify the beginning of a historical process of long duration, but of a fundamental nature, which will eventually witness the emergence of non-Western civilisations (possibly the Sinitic, the Moslem, the Hindu, and quite likely some others as well) taking their rightful place side by side with Western civilisation, on the basis of rough parity. Be that as it may, none of these three visions deny that we are moving into a very crowded and hungry competitive world, interdependent but still unequal, with great potential for systemic dislocations and breakdowns, as well as violent international, regional and domestic conflicts.

Analysts of the general incapacity of nations to come to grips with these problems, and to bring about the necessary social changes, often blame the absence of political will for the failure to apply what is already know, for the immobility and drift that seems to be characteristic of our time; and then they move on to other subjects. I suggest that this is too easy a cop-out, too facile a dismissal of a crucial problem, and an abrogation of man's responsibility for his future.

II

In many ways, some of which we don't fully understand, the development of modern communications has been instrumental in bringing about the great social changes that have shaped, and are continuously reshaping, modern life and society. It has also been partly responsible for the rapidity of the rate of change and for the fact that rapid change has become man's constant and inseparable companion in life.

In the industrial countries, modern communications have made possible the growth of large organisations and their bureaucracies. But it has, quite unexpectedly, also led to personal alienation and a growing unwillingness to identify with these larger structures. In fact, many people are turning away from a superficial and undifferentiated mass culture, also made possible by modern communications, towards a new emphasis on the individual as a human being, in search of personal authenticity and self fulfilment, often thereby narrowing the horizon of their public commitments to local

politics and community affairs, away from the larger depersonalised structures and bureaucracies, including those of the state and large corporations.

The persistence of language, ethnic origin, and religion as essential elements of one's self definition as a person and as a communal or national group claiming political recognition, and the search for roots in what used to be the modern a-historical society par excellence — the United States — are all part of this trend. It is less clear how communications have contributed to this phenomenon, but there seem to be no doubt that it has. Likewise, modern communications has, through the rise of political consciousness of previously marginalised groups, made possible mass participation in politics. But at the same time it has also contributed to the fragmentation of society along communal lines, and to the vast increase in litigation which is now overloading the judicial systems leading to a search for methods of non-judicial, community-related resolution of disputes.

It has helped to increase the power of government; at the same time, it has helped to erode its authority. Modern communications have helped raise to a previously unimaginable level the frequency and intensity of human interaction in the cities, and turned them into magnets pulling in large numbers of people from the countryside. But by the same token communications have made possible the subsequent movement out of the cities, leaving them insolvent and unmanageable, with the inner core a desolate wasteland.

It is not too difficult to expand this list of the ways in which modern communications have intervened and reshaped our lives at the personal and interpersonal level. It would be incorrect and unfair, however, to look at modern communications as a primary cause, rather than as a contributing factor expanding the impact of other, more decisive ones. Likewise it would be unfair to blame the intractable nature of modern inflation on communications although, undeniably, communications have contributed to the increase of the levels of expectation of material welfare, which now seem to outstrip the capacity to meet them.

It is equally unclear what role communications have played in the shifts of basic value orientation which have taken place in much of the industrial world. Certainly, on the one hand, communications have contributed to greatly increased productivity in agriculture, in business and in government; but do we really know whether and, if

so, how, communications have contributed to the loss of the work ethic in industrial society? This, as well as phenomena like the shift away from rationality to an emphasis on the expressive, intuitive, and transcendental faculties of the human person, the lower tolerance for injustice, the emergence of a sense of human solidarity, transcending communal, ethnic and national boundaries, may well be rooted in dynamics in which communications have played at least some significant role.

Lastly, part of the unemployment problem in affluent societies may have to do with changed expectations towards the kinds of jobs people are willing to accept, because of a more general insistence on having meaningful jobs, jobs that have psychic value to the worker. This opens up one of the fundamental dilemmas that face an industrial society. Should it restructure its industries so as to make individual jobs more meaningful? What if this means changes in the criteria of efficiency objectives, which in turn might endanger growth and output? Or should it export those industries which cannot restructure their production process without considerable loss of efficiency to other, developing, countries?

In short, the adjustments to the transition towards post-industrial society with its emphasis on capital — and information — intensive industries, the necessary development of energy — and resource — conserving lifestyles, as well as the implications of the changing pattern of the international division of labour, resulting from the gradual industrialisation of the South, are all problems which urgently and fundamentally raise the question of the capacity of modern industrial nations for necessary and inevitable social structural transformation.

As to the developing countries, especially the large and populous ones, the autonomous development — and industrialisation — trajectories which both poverty and demography impose on them will require the revitalisation of the rural countryside, through the restoration of their hope and their self-confidence, the utilisation of traditional and new skills, the active and voluntary self-organised participation of the poor. This also holds for youth, for in most of these countries youth constitutes more than half of the total population. Such a development trajectory also aims at overcoming the other structural imbalances which were inherited from colonial and pre-colonial times: those between centre and periphery, between town and countryside, between the modern and

the traditional sectors, and between the foreign and national, domestic sectors.

It is obvious that such a development effort from below has its own communications requirements. The amount and range of information which has to be brought within reach of these groups simply exceeds the capacity of the more traditional forms of communication: the village headman, the extension services, and even the more recent centrally-broadcast farmers' programmes. This type of development effort will require a vast increase in locally produced, relevant information, and will need decentralised programming with the full participation of those whose interests it purports to serve.

It also requires greater ability to package the information in line with existing levels of education, intellectual orientations and cultural traditions. Special attention will have to be given to the location of communications equipment in the villages and the poorer urban sectors in order to ensure free and equal access to, and use of, the equipment. This means as much local control of this vast domestic communication network, including the social reinforcement and feedback mechanisms that will ensure such control and such local participation, as is compatible with the equally legitimate interests of governments to reach their citizens.

The general slowness in implementing such communications policies is, apart from the financial constraints, to a large extent caused by considerations that are political and legitimate, but not necessarily insurmountable. They stem from the difficulty of managing orderly structural change. The implementation of the autonomous development model involves fundamental social and political changes, of a magnitude which is bound seriously to strain the fabric of social cohesion and the resilience of the political system of these countries. In a number of Third World countries which tried to make the transition from a growth to a social justice model, but which have failed in this attempt because the accompanying tensions exceeded the capacity of the political systems to absorb them, total polarisation set in, leading towards the erosion of the centre, and eventually the collapse of the political system as a whole. And the escalation of senseless violence became almost inevitable.

We know very little of the role that communications have played in events of this kind and this magnitude. Whether and how

communications have contributed to the polarisation processes, or not, and whether such collapse could have been prevented, are not questions that should be addressed to the communications media. The relevant question that remains, however, is: does the communication system have the potential capacity to dampen the extreme swings of the pendulum of opinion and emotion and if so, how should it then be used?

Development, by whatever trajectory, will have to speed up the capacity of developing countries to handle science and technology and to integrate these into the culture of their nation. In the final analysis, what makes the difference between a developing country and a developed one is whether it has, or does not have, the capacity for the self-sustained, autonomous generation of knowledge in response to the problems it faces. We still know very little about the dynamics of science and technology transfer, the mediating and filtering mechanisms that are required to make them indigenous. Nor do we know much about how to stimulate indigenous intellectual and scientific capability and creativity, other than through credible guarantees for the freedom of scientific inquiry. But here again the question arises, is there anything that modern communications can contribute to speed up that process? Can communications research improve a nation's scientific and technological learning capacity?

People in these large populous countries will also have to learn to live under conditions of extremely high population density. These countries will have to develop a greater capacity to manage, humanely, justly and efficiently, such high concentrations of people, both in their rapidly growing primate cities, and in rural settings. Can modern communications help in devising administrative systems at the scale required, capable of doing this through the technological and systemic resolution of the conflicting needs of both centre and periphery, of central rationality and peripheral autonomy.

Modernisation is often equated with greater individualisation, increased competitiveness and innovativeness. The need for liberation from obsolete, unjust social structures, which have kept people shackled for so long, certainly requires this. At the same time, learning to live in areas of high density with some degree of harmony, civility and some sense of community will require major cultural adjustments, possibly rediscoveries, and innovation. In

any case, people will have to learn to cooperate together effectively at higher levels of individualisation, even though it is unlikely — and even unwanted — for their cultures to reach the extreme levels of individualisation which one finds in some countries in the West.

High population density is also bound to reduce personal space. I believe that we all, in the industrial world as well as in the developing countries, will have to learn to develop a corresponding sense of inner space, through a heightened perception of beauty, through artistic creativity and through religion as an inner experience. Should not modern communications address these questions in the setting of transitional societies, as well?

At the international level, interdependence is an undeniable fact. It is also a fact that no single country, and no combination of countries, is in control of the international system, or capable of imposing its will on others. Adding to the difficulties of managing such a situation are the larger numbers of participants or actors, in the shape of new nations, and a large number of so-called non-territorial actors: not only the international organisations and multi-national corporations, but also the extra-national terrorist groups of various kinds. Compounding this is the greater permeability of national boundaries, through which essentially uncontrollable short term money flows and transnational portfolio investments, as well as communications, take place. Legitimate national policies within the domestic sphere of one country, including economic development plans and their environmental impact, may affect adversely the interests of other countries.

As in the domestic sphere, in industrial as well as developing countries, there is in the international sphere an urgent need for greater managerial capacity, in the first place with a view to keeping international conflicts localised and preventing escalation from reaching unmanageable levels of violence or, worse, from reaching the nuclear threshold. There is also the need to manage the reduction of the level of trade in conventional arms, and to manage post-nonproliferation nuclear problems. In a different area we will have to learn to manage international cooperation at an unprecedented higher level of international interaction. Problems on a global scale like the global environment, food, energy and other resources are crying out for more effective instrumentalities of international management. So do the ever increasing numbers of political prisoners and refugees, victims of the vagaries of national

and international politics, but especially victims of our incapacity to manage the necessary structural transformation humanely.

Like at the national level in developing as well as industrial countries, the need for improved management capacity at the international level is clear. The problems are recognized, but there is a similar failure to act accordingly. At the international level, too, there is a need to learn how to bring about fundamental structural change in an orderly fashion. In the view of a large majority of mankind the present international order is not only non-viable, but also immoral. The struggle of the Third World for a new international economic order is a manifestation of a more general desire to overcome the global, structural dualism which lies at the heart of the present international pattern of inequality and injustice. It is therefore unlikely that we will see a reduction of international tensions before the attainment of greater equity in the international division of labour and in the global distribution of political power.

III

The capacity of a nation — not just of its government, but of society as a whole — to adjust to rapidly changing techno-economic, socio-cultural and political changes, on a scale which makes it possible to speak of social transformation, very much depends on its collective capacity to generate, to ingest, to reach out for, and to utilise a vast amount of new and relevant information. This capacity for creative and innovative response to changing conditions and new challenges I would like to call the learning capacity of a nation. This capacity is obviously not limited to the cognitive level, but includes the attitudinal, institutional and organisational levels of society as well.

It therefore resides not only in a nation's formal educational system, not only in the government bureaucracy, in parliament and the political parties, but also in the business community, in the media, the professional organisations, the trade unions, the cooperatives and the various kinds of voluntary associations within the society at large. It also includes the political public with its various political constituencies, consumer groups, and all other kinds of permanent and ad hoc pressure groups. Changing conditions are

bound to make our traditional skills, and means of livelihood, obsolescent, and we will continually have to learn new ones. There will then be a need for new instrumentalities for retraining, re-schooling and re-education on a continuing basis. We will have to learn to organise for lives of 2 or 3 careers, as life expectancy increases in rapidly changing societies.

Much of the resistance to social change has turned out to be not of an intellectual and emotional kind alone, but also social. Bureaucratic rigidities in both governmental and non-governmental organisations, institutional traditions and priorities that are no longer relevant, all very much determine the outer limits of a nation's total responsive and innovative capacity. The tendency to sit on information and to treat it as a bargaining chip in inter-bureaucratic competition is an affliction not only of Third World bureaucracies. These rigidities may become a major cause of a nation lagging behind others, or of falling behind the point at which new problems and challenges could be met by small incremental responses, as a result of which painful and dislocating adjustments of a much larger order of magnitude become necessary or inevitable.

Improving the organisational and institutional learning capacity of a nation would require not only a greater capacity to ingest new information, and improved two-way horizontal and vertical information flows, throughout society as a whole, and between as well as inside organisations and institutions. It might well require the development of a second generation of 'open learning systems'. Opportunities for senior bureaucrats and administrators to expose themselves to new ideas and information through compulsory leave of absence or study leaves, intra-bureaucratic seminars bringing together senior and junior staff on equal footing for unstructured bull sessions, changes in the reward and promotion system, lateral entry in order to bring in fresh blood without having to make the slow rise towards seniority, and regular reviews of the mission and priorities of the institution, are ways which should be considered in this connection.

The capacity to manage orderly social change will also very much depend on the existence of an adequate number of research and policy analysis institutions dealing with the key problems of social change. It is important that such institutions be independent of government, but close enough to it to make possible the use of its

products by government institutions and decision makers. At the same time they should be remote enough to ensure the autonomous generation of information, independent critical judgement and policy innovations and proposals that are credible not only to the government bureaucracy, but also to the public at large. Such institutions could be connected with universities — although in many Third World countries universities are often part of the problem, rather than part of the solution — or they could be free standing, even though sometimes, of necessity, indirectly funded by government. Such institutions could also contribute micro-policy studies for use by non-governmental organisations, volunteer groups, local cooperatives, and other voluntary associations. Governments should realise, more than they now generally do, the importance of improving the learning capacity of the nation as a whole, through these non-governmental organisations and ad hoc citizen groups.

Ultimately, they are manifestations of a society's capacity for creative response, self-renewal and innovation, at local as well as national levels, at the level of people, as well as of governments. Ideally, these free standing institutions of policy studies, together with these non-governmental organisations, could become, and should be treated as, a second, supplementary capability in a nation's system of governance, from which the government could draw new ideas and policies.

At the cognitive level,it is clear that the improvement of the national learning capacity does not end with the ingestion of larger amounts of information. These larger amounts will have to be relevant to the problems the nation faces. There is therefore a need for greater selective capacity, although there is also a point where selectivity becomes too narrow and dysfunctional, leading towards the nation's cognitive impoverishment and retardation. What will have to be enhanced in a short period of time, in both industrial and developing nations, is the capacity for critical judgement. Critical judgement lies at the heart of a nation's capacity for discovery, creativity and innovation. Even though modern communications may at some point in the future greatly increase the self-learning capacity of individuals within a society, and thereby make classroom instruction largely obsolete, the maintenance and nurturing of a nation's capacity for critical judgement and discovery, in terms of the rational and the expressive and imaginative

dimensions of human life, at the individual and national levels, constitutes an autonomous faculty which is almost independent of the amount of information available, and largely unaffected by the technological advances in the communications field. These faculties cannot be nurtured and stimulated through training programmes. They can only grow and flourish in communities dedicated to free and scholarly inquiry, through untrampled exposure to cross fertilisation and mutual criticism by other creative minds committed to the pursuit of truth and excellence. This may well be a characterisation of our universities in the near future.

Part of our incapacity to comprehend fully what is happening to us in the changing conditions of the world, despite the plethora of available information, lies in the operational inadequacies of present conceptual frameworks. We almost need a new language and we certainly need new concepts which will enable us to select, synthesise and conceptualise the full implications and the human significance of the challenges we face, of the changes we are going through, and of the means we will choose to meet these problems. In short, what we need, and what we should work towards is a comprehensive democratic theory of the management of orderly and humane societal transformation; or, put differently, a democratic theory of development. The new concepts and the new language of such a theory will quite possibly, but not necessarily, be developed in the research and policy centres of critical judgement and discovery. If, in the past, science drew greatly on the concepts of mechanics for the construction of its models, it is now cybernetics and higher mathematics that have become a source of conceptual imagery. But their application to the broader problems of social transformation in ways that would have operational significance largely still remains to be done.

Interdependence, and the need for greater international understanding that goes deeper than the level of superficial contacts through commerce and tourism, or through vicarious experience through exposure to the media, as well as the need for much higher levels of cooperation among nations as well as within nations, and the need for greater social cohesiveness in the face of stronger tendencies towards social fragmentation, all point to the crucial importance of expanded consciousness, heightened sensitivity and empathy and greater human solidarity, not only on the part of governments and national and international bureaucracies, but also

between ethnic and communal groups within the same country, and among the transnational communities of the same faith. How does a nation learn to develop these sensibilities? In the past it used to be the churches and the social institutions of other religions which inculcated and helped to develop the capacity of primary groups for human compassion, transcending the limits of one's own group, and for relating and trusting others who are, in various ways, different from ourselves. Growing secularisation has left us everywhere almost without institutions performing these humanising functions.

We will have to learn to develop new ways and instrumentalities for these purposes in order to bring about the attitudinal changes which are needed to deal with the vast transformations the future will bring. In doing so we should however not limit outselves to the education of schoolchildren and to the field of child-psychology. We will all have to learn to live with the uncertainties of change, with rapid change as a permanent condition of modern life, in ways which do not lend us, in fear and self-protection, constantly to fall back on the primordial security and loyalty of one's own primary group, in hostility with all the rest. We will have to learn to live with the increasing vulnerabilities of extremely complex modern societies and an extremely fragile and complex world. We will have to learn how to manage our fears, if we are not to perish.

At a more fundamental level, increasing our capacity for almost continuous attitudinal change brings us inevitably face to face with the cultural and religious substratum of our societies, in which the values that shape our behaviour are rooted. The different value configurations of each culture are determined by the responses of that culture to the ultimate questions of human existence: death, tragedy, power, love, loyalty and hope, the meaning and purposes of life, one's expectations of life on this Earth, the place of the transcendental in human existence. These parameters predetermine for each culture the area of choice and freedom. They set the limits of a nation's capacity to learn and to adjust. They constitute the structure into which new information, new technology and new skills will have to be integrated before they can be used creatively by, and within, that culture. They prefigure a nation's cultural identity. History has shown that these parameters are not fixed for all times. They do change, but over long periods of time. More rapid change of the parameters, as a result of defeat in war, or

because of the overwhelming impact of a more powerful culture, has often, though not always, led to the disintegration of the nation and the collapse of its cultural identity.

The magnitude of the societal changes that are now taking place, as well as of the challenges to which we will have to respond, now make such adjustments of these parameters themselves necessary, in both developing and industrial society. This will require a continuous process of re-interpretation and re-articulation of the often hidden but sometimes explicit assumptions of the culture and religion in which the nation is embedded, as well as re-interpretations of the myths which reflect the unspoken aspirations and purposes of culture and nation.

No technocratic manipulation of values, through the media or more directly, will bring about the kind of attitudinal change which the magnitude and fundamental character of the social changes in which we are already involved require of us. The impact of any deliberate programme to bring about new attitudes may well be limited. And maybe we should say, fortunately so. Each nation will have to learn to develop these new attitudes through a clearer awareness of the problems it faces, through a greater capacity to relate the basic assumptions of its culture and its basic values to these problems, and through a greater capacity for national self-reflection, moral reasoning and moral commitment to action. It is a capacity which in the final analysis hinges on the vitality and creativity of that culture.

IV

What can modern communications contribute to the learning capacity of nations? The search for a democratic theory of societal transformation that is valid for an interdependent world and of global moral relevance is essentially an intellectual and conceptual activity, outside the realm of communications as such. Nevertheless, the mass impact of modern communications makes it incumbent upon the communicators to bring out not only the social and political implications of the use of new advances in communications technology, but above all their full societal potential. Each new piece of technology creates its own social structure. It becomes part of larger social structures, and embedded in a social system

which affects its use, but which itself is also affected by the way it is used. It is of course not entirely to be foreseen what the ultimate social impact of a piece of new technology is going to be. But awareness of its possible implications and potentials may help nations to decide how to regulate its use without restricting its potential, and also to make sure, to the greatest extent possible, that its use will not erode the institutions, processes and procedures of democratic life and decision making, but rather strengthen them.

Like the medical doctor, the manufacturer of pharmaceuticals, the researcher in micro-biology, genetics, pharmaco-psychology, and nuclear physics, the inventor and producer of communications technology can no longer summarily dismiss his responsibility for the broader social consequences of his inventions and their production. Of course, scientific and technological creativity has its own thrust and dynamics, but invention and development in the communications field are generally no longer products of the individual mind but of R and D systems, which can and should be held much more socially accountable. And so they have to help identify the moral and political dilemmas that technological advances raise, and to indicate the ways in which their use might strengthen civility and freedom or, conversely, threaten it.

Seen more broadly, modern man's greatest failure so far has been his incapacity to domesticate and to control science and technology, his failure to make them serve social and ethical purposes. They now derive their main thrust from the increasingly irrational needs in the areas of the production of arms and of technology of convenience. The crux of the problem which the future poses to the scientific and technological community is whether they can redirect the expansion of knowledge and technology, including communications, to better serve the goals of human survival and peace in justice, as well as the eradication of hunger, disease, illiteracy and backwardness in the larger parts of the world.

An even greater contribution that modern communications could make is in the area of improving national and international capabilities for the management of orderly social change. It is true that humankind's capacity to manage social transformation may, quite likely, be inadequate to match the magnitude of the historical forces which seem to be at work today, and which we barely understand. But the utter destructiveness of the means of violence

to which it is now possible to resort, in ways in which no longer only the possible death of hundreds or thousands of people but of millions is involved, leaves man no choice but to try.

Modern communications has already contributed a great deal to the information — and management — sciences. But even there we should be more aware that their unthinking application automatically tends to strengthen the power of the centre to the detriment of the periphery; to strengthen the capacity to oppress, and to weaken the social conditions for freedom and emancipation. In improving management capability to deal with the problems and challenges ahead we will have to make it more sensitive to the eternal dilemmas of choosing between efficiency and justice, between effectiveness and freedom, between man's inevitable place in a set of information systems, and the privacy he needs to remain autonomous and creative.

The question then which we have to face is, can modern communications be used — and, if so, how — almost against its inherent social characteristics, in ways that will maintain and strengthen the essential pluralism of our societies, in ways which will ensure greater capacity and opportunity for the weak, the poor and the uninformed to participate effectively in decisions affecting their lives and those of their family? This in turn raises more general and fundamental questions of control, both on the national and international level. The struggle for a new world information order at the international level with its problems of the sharing of control in allocating equitably the electronic spectrum, and the policy problems affecting freedom and the symmetry and asymmetry of information flows, of privacy, as well as Third World representation on the boards of international news agencies, almost all find their counterpart at the domestic national level, in industrial and developing countries alike. Another dimension which requires more attention is the training of communications technicians. In light of the previous discussion, the need to sensitise technicians to the broader social and political implications of the technology they are working with, needs no elaboration.

One other important area in which modern communications could make a contribution is mass education. None of the experiments in the use of TV and other electronic media for the purpose of mass education have been very successful. The reason for this may well be that the technology has been put into the hands of educationists alone, without reference to the larger processes of

economic and social change and possibly without fully utilising the possibilities of bringing the medium closer to the felt needs and economic, social and political interests of their clientele. In addition, mass learning will have to be largely self learning within the context of social reinforcement mechanisms. The technologies, both in terms of hardware and software, seem to be all available, but they still remain to be put together more effectively in new 'open learning' systems.

The final question deals with the importance of communications research. Communications research is still a relatively new field; it has not yet moved much beyond fragmentary studies about impact on, and interaction with, specific audiences. It would be unfair, at this early stage, to expect communication research to deal systematically with the communications impact on whole cultures and on macro-processes of social change. Still, at some point soon it will be necessary to address these problems. To this end it will be necessary to draw the best scholars from various social science disciplines into this endeavour. It may be a useful task for the International Institute of Communications to undertake or stimulate.

A great many studies are at present under way, in various places in the world, which deal with the shape of the future. Some centre around economic, others around technological projections. One study underway is entitled 'Financing the Future'. These are all legitimate and important approaches. But none deals with the future as an ethical category in which the ethical and value-choices we make today will shape that future. It is in this area in which communications research, with the support of a variety of disciplines, could at least raise the pertinent questions to which communications technology producers, experts, consumers, planners and political decision makers have to respond. For it is clear that unless those of us who are in the field of modern communications face up to these responsibilities, communications will automatically become the handmaiden of mankind's headlong rush into a totalitarian future. If modern communications, and the people in it, on the other hand, do have the courage to face up to these responsibilities, communications may become an important means for the further emancipation of both Western and non-Western civilisations in ways which will ensure human growth and freedom. For if there is going to be a tolerable future for all of us, rich or poor, weak or strong, we will have to liberate it.

Bibliography

Alfian, 'Some Observations On Television In Indonesia', in *New Perspectives In International Communication* edited by Jim Richstad, East-West Communication Institute, East-West Center, Honolulu, Hawaii, 1977.

Alfian, *Television in Indonesian Villages: An Interim Research Report*, Honolulu, Hawaii, 1978. Unpublished paper.

Alisjahbana, S. Takdir, *Values As Integrating Forces In Personality, Society and Culture*, University of Malaya Press, Kuala Lumpur, 1974.

Attali, Jacques, *La Parole Et l'Outil*, Presses Universitaires de France, France, 1975.

Bell, Daniel, 'The Return Of The Sacred: The Argument About The Future of Religion', in *Bulletin*, The American Academy of Arts and Sciences, Vol. XXXII, No. 6, March 1978.

Berger, Peter L., Berger, Brigitte and Kellner, Hansfried, *The Homeless Mind. Modernisation and Consciousness*, Random House, New York, 1973.

Brewster, Kingman, Jr., 'Centennial Address', in *Centennial Celebration, Program and Addresses*, Vanderbilt University, Nashville, Tennessee, USA, 1975.

Brown, Harrison, *Learning How To Live In A Technological Society*, the Ishizaka lectures (to be published in Japan), 1978.

Cater, Douglass, *A Perspective from Aspen*, Speech to the Federal Communications Bar Association on 24 November, 1975, Washington, DC, Aspen Institute for Humanistic Studies, 1975.

Coladarci, Arthur and Arnove, Robert, *Educational Television: A Policy Critique and Guide for Developing Countries*, School of Education, Stanford University, USA, 1973.

Freire, Paulo, *Pedagogy of the Oppressed*, The Seabury Press, New York, 1970.

Frey, Frederick W., 'Communication and Development' in *Handbook of Communication*, edited by Ithiel de Sola Pool et al., Rand McNally College Publishing Company, Chicago, 1973.

Giddens, Anthony, *The Class Structure of the Advanced Societies*, Harper and Row, New York, 1973.

Gouldner, Alvin W., *The Dialectic of Ideology and Technology. The Origins, Grammar, and Future of Ideology*, The Seabury Press, New York, 1976.

Gunter, Jonathan F., *Draft Report on US Information, Education and Cultural Exchange and The Debate on the World Information Order*, Academy for Educational Development, Washington, DC, 1978.

Hollnsteiner, Mary Racelis, 'People Power. Community Participation in the planning of Human Settlements', in *Carnets de l'Enfance*, Vol. 40, UNICEF, Geneva, 1977.

Homet, Roland, Cater, Douglass and Robinson, Glen, *Communications and Society*, Aspen Institute for Humanistic Studies, New York.

International Institute of Communications, *Vision and Hindsight: The Future of Communications*, London, 1976.

International Institute of Communications, *Issues in Communications No. 1*, London, 1977.

Jackson, Karl D., and Pye, Lucian W., *Political Power and Communications in Indonesia*, University of California Press, Los Angeles, 1978.

Kaplan, Martin, *The Critique of Science*, Aspen Institute for Humanistic Studies, New York, 1975.

Kearl, Bryant E., 'Communication for Agricultural Development', in *Communication and Change, The Last Ten Years — and the Next*, edited by Wilbur Schramm and Daniel Lerner, University Press of Hawaii, Honolulu, Hawaii.

Lakatos, Imre, and Musgrave, Alan, *Criticism and the Growth of Knowledge*, Cambridge University Press, London, 1970.

Lasswell, Harold, *Communication In a Divided World: Opportunities and Constraints*, The Louis G. Cowan Lecture, International Institute of Communications, London, 1977.

Lerner, Daniel, and Nelson, Lyle M., *Communication Research — A Half Century Appraisal*, The University Press of Hawaii, Honolulu, Hawaii, 1977.

Manschot, Ben, *Media, Macht En Mensen, Over massacommunicatie en beinvloeding*, Wetenschappellijke Uitgeverij, Amsterdam, 1974.

Porat, Marc Uri, 'Global Implications of the Information Society. New approaches to Development', in *Journal of Communication*, Winter 1978, Vol.28:1.

Pye, Lucian W., *Communications and Political Development*, Princeton University Press, Princeton, New Jersey, 1963.

Renfro, Ren, 'How Congress is Exploring the Future', in *The Futurist*, April 1978.

Slater, J.E., *Governance*, Aspen Institute for Humanistic Studies, New York, 1976.

Soedjatmoko, 'The University and the Global Community', in *Centennial Celebration, Program and Addresses*, Vanderbilt University, Nashville, Tennessee, USA, 1975.

Soedjatmoko, *Some Thoughts on Higher Education*, Occasional Paper No. 15, International Council for Educational Development, USA, 1975.

Susanto, Astrid, S., *Komunikasi Kontemporer*, Penerbit Binacipta, Bandung, 1977.

Susanto, Astrid, S., *Kerangka Perencanaan Komunikasi Terpadu*, Jakarta, 1978.

Susanto, Astrid, S., *Komunikasi Dengan Masyarakat Desa*, Jakarta, 1978.

Team Survey, *Masalah Komunikasi Dalam Bahasa Indonesia Di Daerah Pulau Lombok*, Fakultas Sastra Universitas Pajajaran, Bandung, 1978.

Teer, K., *The Information Industry in 1984*, Lecture, Philips Research Laboratories, Eindhoven, Netherlands, 1972.

Teer, K., *New Services and New Technologies*, Lecture, Philips Research Laboratories, Eindhoven, Netherlands, 1974.

Van Peursen, C.A., *Strategies Van de Cultuur. Een Beeld Van De Veranderingen In De Hedendaagse Denk-En Leefwereld*, Elsevier Nederland B.V., Amsterdam/Brussels, 1973.

Vogelaar, G.A.M., *Communicatie Kernproces Van De Samenleving*, De Erven F. Bohn N.V., Haarlem, 1962.